



NOVEL HUMAN NEUREXIN-LIKE PROTEINS AND
POLYNUCLEOTIDES ENCODING THE SAME

The present application claims benefit of priority to U.S.
5 Applications Ser. Nos. 60/178,557, filed January 26, 2000, and
60/199,513, filed April 25, 2000 which are herein incorporated by
reference in their entirety.

1. INTRODUCTION

The present invention relates to the discovery,
10 identification, and characterization of novel human
polynucleotides encoding proteins that share sequence similarity
with animal neurexin proteins and contactin associated proteins.
The invention encompasses the described polynucleotides, host cell
expression systems, the encoded proteins, fusion proteins,
15 polypeptides and peptides, antibodies to the encoded proteins and
peptides, and genetically engineered animals that either lack or
over express the disclosed sequences, antagonists and agonists of
the proteins, and other compounds that modulate the expression or
activity of the proteins encoded by the disclosed sequences that
20 can be used for diagnosis, drug screening, clinical trial
monitoring, the treatment of diseases and disorders, or cosmetic
or nutraceutical applications.

2. BACKGROUND OF THE INVENTION

Neurexins have been associated with, *inter alia*, mediating
25 neural processes, seizures, signaling, exocytosis, cancer, and
development. Neurexins can also serve as receptors for
latrotoxins.

3. SUMMARY OF THE INVENTION

The present invention relates to the discovery,
30 identification, and characterization of nucleotides that encode
novel human proteins and the corresponding amino acid sequences of